

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Objections to the specification

The amendment filed on October 27, 2005 is objected to as introducing new matter. In particular, the examiner notes that in the replacement paragraph for the first full paragraph on page 6, the addition of the term "cool" to describe the air flow has no antecedent basis in the original specification and claims.

This paragraph is amended to remove the term "cool." Accordingly, withdrawal of the objection is requested.

Rejection of claims 1, 2, 5, 6, and 9-12 under 35 U.S.C. § 103(a)

Claims 1, 2, 5, and 9-12 presently stand rejected as being unpatentable over Taiwanese Patent 540,641 (hereafter "Taiwan '641") in view of U.S. 5,582,506 (Hong, hereafter "Hong '506"), and claims 1, 2, 6, 9, 11, and 12 presently stand rejected as being unpatentable over Taiwan '641 in view of U.S. 5,522,700 (Hong, hereafter "Hong '700"). These rejections are respectfully traversed for the following reasons.

It is respectfully submitted that neither Taiwan '641 and Hong '506 nor Taiwan '641 and Hong '700 form a prima facie basis for obviousness of any of claims 1-11.

Claim 1 is characterized in that a heat dissipating fan includes a fan-supporting cover plate that includes a fan-supporting base. An impeller is mounted to the fan-supporting base of the cover plate to constitute a fan unit (the fan unit thus including the base, cover plate, and impeller). An air guiding member is provided, having an annular sidewall that defines an air passageway between first and second ends of the air guiding member.

The air guiding member is constructed as a single, hollow member, there being no part of the air guiding member formed in the air passageway. The first end of the air

guiding member is connected to the cover plate in a stacked relationship, such that a portion of the fan unit is received in the air passageway to define a first section of the air passageway (wherein the portion of the fan unit is received), and a second section wherein the air passageway is entirely free of obstructions (there being no part of the air guiding member formed in the air passageway) functions such that air running through the passageway of the air guiding member can naturally pass through near regions below the hub portion of the fan unit and then exhaust from the expanded air outlet of the guiding member.

The examiner has acknowledged that Taiwan '641 "does not disclose that the annular side wall defining the air passageway has an unobstructed part for confining air in the air passageway to pass through below a hub portion of the fan wheel, and that [in Taiwan '641] no portion of the air passageway extends past hub portion of the fan wheel unobstructed, i.e. there is no second unobstructed section of the air passageway below the hub portion of the fan unit" (page 3 of the recent Office action dated December 1, 2006).

It is respectfully submitted that there is no motivation or suggestion for any modification of Taiwan '641, according to the teachings of either Hong '506 or Hong '700, to arrive at the presently claimed invention.

In the recent Office action, the examiner states that "omission of an element and its function is obvious if the function of the element is not desired," citing MPEP 2144.01 II (page 3 of the recent Office action).

Applicant refers the examiner to MPEP 2144.01 II B, which states that "the omission of an element *and retention of its function* is an indicia of unobviousness," citing *In re Edge*, 359 F.2d 896, 149 USPQ 556 (CCPA 1966)(emphasis added).

Applicant notes that U.S. Patent Application Publication 2003/0202878 is a U.S. equivalent to Taiwan '641.

It is clear from the illustrations of Taiwan '641 (U.S. 2003/0202878) that support members are required for the support of the fan. Moreover, the support members are required at the air outlet of the disclosed fan, since Taiwan '641 (U.S. 2003/0202878)

teaches removal reducing of the frame at the air inlet portion. This is clear with reference to Figs. 4-7.

Referring to U.S. 2003/0202878, it is stated that the disclosed fan “is accomplished by partly *removing or reducing the height of the frame 12*” (U.S. 2003/0202878; [0025]). Referring to Figs. 4-7, it is clear that it is a top portion of the frame 12 that is removed or reduced, such that the fan blades extend well above the frame 12.

Again referring to U.S. 2003/0202878, it is noted that “as the frame 12 is reduced in height to an experimentally-predetermined optimal value, air entering into the fan 40 is adapted to flow substantially at axial and radial directions [...] via the air inlet 14, thereby increasing air intake for the fan 40” (U.S. 2003/0202878; [0026]).

Clearly, the function of supporting members for the fan motor cannot be eliminated, since the fan motor must be supported in some manner.

Therefore, the assertion that “omission of an element *and its function* is obvious if the function of the element is not desired” cannot be applied in the present instance, since the function of the supporting members is not only desired, but is essential.

Taiwan ‘641 (U.S. 2003/0202878) provides for increasing air intake for a fan 40 by removing an upper part of the fan frame 12. This is accomplished by providing support members at a bottom portion (air outlet) that form obstructions in the air outlet.

However, providing frame members such as fan supporting members is counter to the objective of Taiwan ‘641.

While the examiner states that “following the teachings of Hong ‘506 and ‘700, there is no need for the motor 58 in Taiwanese Patent 540,641 to be supported by the ribs 56,” it is respectfully submitted that such a modification of Taiwan ‘641 is entirely counter to the teachings of Taiwan ‘641.

Both Hong ‘506 and Hong ‘700 disclose a fan mounted to a plate (plate 1 in Hong ‘700, and board member 3 in Hong ‘506) which is disposed on top of a finned heat-dissipating base member (base 3 in Hong ‘700, and finned plate 1 in Hong ‘506).

Modifying Taiwan '641 according to the teachings of Hong '506 or Hong '700 would result in a structure necessarily including a portion of a frame extending above the blades and a generally continuous cover plate (such as the plate 1 in Hong '700 or the board member 3 in Hong '506) covering a substantial portion of the top of the frame (since both Hong '506 and Hong '700 provide only a circular opening in the plate member approximately the diameter of the fan blades).

Since the principle of operation of Taiwan '641 is the elimination of frame elements above the fan blades, which is explicitly disclosed to be accomplished by removal of a portion of the upper (air inlet) portion of the frame, there can be no teaching or suggestion to add such a top plate as a fan support.

Even in embodiments of Taiwan '641 (U.S. 2003/0202878) wherein an auxiliary frame 70 is provided "surrounding the blade structure 60" (U.S. 2003/0202878; [0036]) at a top part of the frame, there is no teaching or suggestion of ribs for supporting a fan.

It must be noted that the upper frame is provided such that "a user can simply hold at the auxiliary frame 72 and the frame 52 for handling the fan 80 without being hurt by the blades 66 if the blades 66 have not stopped rotating."

Thus, the auxiliary frame is provided as a blade guard, and not for any structural purpose such as supporting the fan. Taiwan '641 (U.S. 2003/0202878) provides no motivation or suggestion whatsoever to modify the auxiliary frame to include a fan support, or to in any other way provide a fan support at the top (air inlet) portion of the frame.

As noted above, both Hong '506 and Hong '700 disclose a fan mounted to a plate which is disposed on top of a finned heat-dissipating base member. Accordingly, both Hong '506 and Hong '700 fail to disclose or suggest providing an air guiding member at an outlet side of a fan.

Neither Hong '506 nor Hong '700 disclose or suggest an annular sidewall that defines an air passageway between a first end and a second end of the air guiding member.

Clearly, then, it is impossible for either Hong '506 or Hong '700 to disclose or suggest such an air guiding member including an air outlet proximate to the second end.

Moreover, neither Hong '506 nor Hong '700 can be construed to disclose or suggest an air guiding member that is a single hollow member, there being no part of the air guiding member formed in the air passageway.

Even construing the outer perimeter of the finned heat-dissipating base member of either Hong '506 or Hong '700 to be an outlet, no part of the finned heat-dissipating base member between the fan and the outer perimeter can be construed to correspond to the claimed "air guiding member, such that said air guiding member is a single hollow member, there being no part of said air guiding member formed in the air passageway" since the plural fins must be construed to be part of the finned heat-dissipating base member formed in an air passageway.

Therefore, there is no motivation or suggestion for the combination of references, or for the modification of Taiwan '641 according to Hong '506 or Hong '700. It is respectfully submitted that such a modification of Taiwan '641 as proposed by the examiner can only be obtained by improper hindsight reasoning, selectively identifying aspects of the cited references (and applying modifications not taught or suggested by either) to assemble the claimed invention in view of the present application.

For at least these reasons, it is respectfully submitted that neither Taiwan '641 and Hong '506 nor Taiwan '641 and Hong '700 form a prima facie case of obviousness of any of claims 1-11, and therefore claims 1-11 are allowable over the cited references. Accordingly, withdrawal of the rejection is respectfully requested.

Rejection of claims 3, 4, 7, 8, and 13 under 35 U.S.C. § 103(a)

Claim 3 presently stands rejected as being unpatentable over Taiwan '641 and Hong '506 in view of Katsui (U.S. 5,559,674). Claim 4 is rejected as being unpatentable over Taiwan '641 and Hong '506 in view of Gan (U.S. 6,817,939). Claims 7 and 8 are rejected as being unpatentable over Taiwan '641 and Hong '506 in view of either Ko (U.S. 2004/0201961) or Chen (U.S. 6,524,674), and Claim 13 is rejected as being unpatentable

over Taiwan '641 and Hong '506 in view of Bendikas (U.S. 6,457,949). These rejections are respectfully traversed for at least the following reasons.

Claims 3, 4, 7, 8, and 13 each depend from claim 1. As discussed above, Taiwan '641 and Hong '506 fail to form a prima facie case of obviousness of claim 1. Further, it is respectfully submitted that none of the additionally cited references (Katsui, Gan, Ko, Chen, and Bendikas) supplement the deficiencies discussed above with respect to Taiwan '641 and Hong '506. Therefore, it is respectfully submitted that claims 3, 4, 7, 8, and 13 are allowable over the cited references at least due to their dependency from claim 1. Accordingly, withdrawal of these rejections is requested.

Conclusion

Every effort has been made to place the application fully in condition for allowance, and to remove all issues raised by the Examiner in the Official Action.

In view of the amended specification, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-3 and 6 be allowed and the application be passed to issue.


Application No.: 10/714,970
Examiner: C. M. Verdier
Art Unit: 3745

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Respectfully submitted,


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